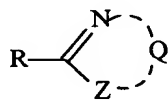


CLAIMS:

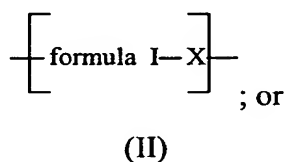
1. An electroluminescent device, comprising
- a) a spaced-apart anode and cathode; and
- b) an organic layer disposed between the spaced-apart anode
- 5 and cathode and including a polymer having an azole structure represented by formula (I)

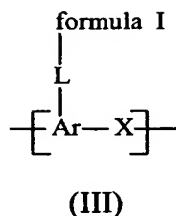


(I)

wherein:

- 10 Z is O, NR', or S;
- Q represents atoms necessary to complete a hetero ring with N and Z;
- R is a substituent and selected from hydrogen, or alkyl, or alkenyl, or alkynyl, or alkoxy wherein the alkyl, alkenyl, alkynyl or alkoxy can have from 1 to 40 carbon atoms; or aryl from 6 to 60 carbon atoms; or heteroaryl from 4 to 60
- 15 carbons; or F, or Cl, or Br; or a cyano group; or a nitro group; or atoms coupled to N or Z to complete a fused aromatic or heteroaromatic ring; and
- R' is hydrogen, or alkyl, or alkenyl, or alkynyl of from 1 to 40 carbon atoms wherein the alkyl, alkenyl, alkynyl or alkoxy can have from 1 to 40 carbon atoms; aryl from 6 to 60 carbon atoms; or heteroaryl from 4 to 60 carbons; or F, or
- 20 Cl, or Br.
2. The electroluminescent device of claim 1 wherein the organic layer is an emissive layer or an electron transport layer or both.
3. The electroluminescent device of claim 1 wherein the polymer having the azole structure is represented by repeating unit of formulas
- 25 (II) or (III)





wherein:

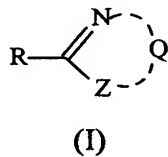
- 5 X is a conjugated group of 2 to 60 carbon atoms;
 Ar is an aryl group having 6 to 60 carbon atoms; or heteroaryl having 4 to 60 carbon atoms, and one or more N, S, or O atoms; and
 L is a direct bond between Formula (I) and Ar or a carbon linking group having 1 to 40 carbon atoms or a non-carbon linking group having 0 to 40 carbon
 10 atoms.

4. The electroluminescent device of claim 3 wherein X includes vinylenes, arylenes, heteroarylenes, arylene vinylenes, or heteroarylene vinylenes and combinations thereof.

5. The electroluminescent device of claim 3 wherein L
 15 includes an alkyl, alkenyl, alkynyl, aryl, or heteroaryl group.

6. A method of making an electroluminescent device, comprising

- a) providing a spaced-apart anode and cathode; and
 b) depositing an organic layer between the spaced-apart anode
 20 and cathode and including a polymer having an azole structure represented
 formula (I)



25 wherein:

Z is O, NR', or S;

Q represents atoms necessary to complete a hetero ring with N and Z;

R is a substituent and selected from hydrogen, or alkyl, or alkenyl, or alkynyl, or alkoxy wherein the alkyl, alkenyl, alkynyl or alkoxy can have from 1 to 40 carbon atoms; or aryl from 6 to 60 carbon atoms; or heteroaryl from 4 to 60 carbons; or F, or Cl, or Br; or a cyano group; or a nitro group; or atoms coupled to N or Z to complete a fused aromatic or heteroaromatic ring; and

R' is hydrogen, or alkyl, or alkenyl, or alkynyl of from 1 to 40 carbon atoms wherein the alkyl, alkenyl, alkynyl or alkoxy can have from 1 to 40 carbon atoms; aryl from 6 to 60 carbon atoms; or heteroaryl from 4 to 60 carbons; or F, or Cl, or Br.

10 7. The electroluminescent device of claim 6 wherein the organic layer is an emissive layer or an electron transport layer or both.

8. The electroluminescent device of claim 1 wherein the polymer is doped with one or more fluorescent dyes, phosphorescent dopants, or other light emitting material.

15 9. The electroluminescent device of claim 3 wherein L includes O, N, S, F, Cl, or Br, or Si atoms.

10. The electroluminescent device of claim 1 wherein R and Z, or R and Q are bound to each other to form a ring.